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AMENDMENTS TO THE SPECIFICATION

Please delete paragraph 19 and replace it with the following new paragraph:

To achieve the above and/or other aspects of the present invention, according to still another embodiment of the present invention, there is provided a handoff method for for an access point of a mobile station in a wireless local area network, the method comprising collecting channel information on access points in an extended service set in response to receiving a handoff alert message from the mobile station, and outputting a response message corresponding to the handoff alert message to the mobile station, the response message including the channel information.

Please delete paragraph 21 and replace it with the following new paragraph:

The method may further comprise outputting an acknowledgement message including personal channel information in response to receiving a handoff notification message from a present access point of the mobile station. The method may further comprise stopping services to the mobile station in response to a temporary connection being established with a new access point of the mobile station, and outputting service data to the new access point through the temporary connection.

Please delete paragraph 22 and replace it with the following new paragraph:

To achieve the above and/or other aspects of the present invention, according to yet another embodiment of the present invention, there is provided a handoff method for an access point of a mobile station in a wireless local area network, the method comprising establishing a temporary connection with a previous access point of the mobile station in response to receiving a reassociation message, outputting a reassociation response message corresponding to the reassociation message to the mobile station in response to establishing the temporary connection, establishing an optimum connection with the mobile station, and terminating the temporary connection with the previous access point in response to establishing the optimum connection.

Please delete paragraph 25 and replace it with the following new paragraph:

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To achieve the above and/or other aspects of the present invention, according to an embodiment of the present invention, there is provided an access point performing a handoff with respect to a mobile station in a wireless local area network, the access point comprising a handoff alert message process unit which receives a handoff alert message and outputs a response message corresponding to the handoff alert message to the mobile station, and a channel information collection unit which collects channel information on access points in an extended service set, wherein the channel information is included in the response message.

Please delete paragraph 29 and replace it with the following new paragraph

To achieve the above and/or other aspects of the present invention, according to another embodiment of the present invention, there is provided an access point performing a handoff with respect to a mobile station in a wireless local area network, the access point comprising a reassociation message process unit which receives a reassociation message and outputs a response message corresponding to the reassociation message to the mobile station, and a temporary connection/termination process unit which establishes a temporary connection with a previous access point of the mobile station using information included in the reassociation message.

Please delete paragraph 31 and replace it with the following new paragraph

To achieve the above and/or other aspects of the present invention, according to an embodiment of the present invention, there is provided an apparatus for use in an access point performing a handoff with respect to a mobile station in a wireless local area network, comprising a channel information collection unit which collects channel information on access points in an extended service set in response to a handoff alert signal, and a temporary connection/termination process unit which establishes for establishing a temporary connection between predetermined access points subject to the handoff operation in response to a reassociation signal.

Please delete paragraph 41 and replace it with the following new paragraph

To achieve the above and/or other aspects of the present invention, according to still another embodiment of the present invention, there is provided a computer readable medium encoded with operating instructions for implementing a handoff method for an access point of a

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mobile station in a wireless local area network, performed by a computer, the method comprising collecting channel information on access points in an extended service set in response to receiving a handoff alert message from the mobile station, and outputting a response message corresponding to the handoff alert message to the mobile station, the response message including the channel information.

Please delete paragraph 42 and replace it with the following new paragraph

To achieve the above and/or other aspects of the present invention, according to yet another embodiment of the present invention, there is provided a computer readable medium encoded with operating instructions for implementing a handoff method for an access point a mobile station in a wireless local area network, performed by a computer, the method comprising establishing a temporary connection with a previous access point of the mobile station in response to receiving a reassociation message, outputting a reassociation response message corresponding to the reassociation message to the mobile station in response to establishing the temporary connection, establishing an optimum connection with the mobile station, and terminating the temporary connection with the previous access point in response to establishing the optimum connection.

Please delete paragraph 43 and replace it with the following new paragraph

To achieve the above and/or other aspects of the present invention, according to an embodiment of the present invention, there is provided a method in a computer system for implementing a handoff of a mobile station in a wireless local area network, the method comprising controlling a channel information collection unit to collect channel information on access points in an extended service set in response to receiving a handoff alert message from the mobile station, and controlling a handoff alert message process unit to output a response message corresponding to the handoff alert message to the mobile station, the channel information being included in the response message.

Please delete paragraph 44 and replace it with the following new paragraph

To achieve the above and/or other aspects of the present invention, according to another embodiment of the present invention, there is provided a method in a computer system for implementing a handoff of a mobile station in a wireless local area network, the method

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comprising controlling a temporary connection/termination process unit to establish a temporary connection with a previous access point of the mobile station in response to receiving a reassociation message from the mobile station, and controlling a reassociation message process unit to output a response message corresponding to the reassociation message to the mobile station in response to establishing the temporary connection. The method in a computer system may further comprise controlling an optimum connection search unit to establish an optimum connection with the mobile station, and controlling the temporary connection/termination process unit to terminate the temporary connection with the previous access point in response to establishing the optimum connection.

Please delete paragraph 45 and replace it with the following new paragraph

To achieve the above and/or other aspects of the present invention, according to still another embodiment of the present invention, there is provided a method in a computer system for implementing a handoff of a mobile station in a wireless local area network, the method comprising controlling a channel information collection unit to collect channel information on access points in an extended service set in response to receiving a handoff alert message from the mobile station, and controlling a temporary connection/termination process unit to establish a temporary connection with a previous access point of the mobile station in response to receiving a reassociation message from the mobile station.

Please delete paragraph 47 and replace it with the following new paragraph

To achieve the above and/or other aspects of the present invention, according to an embodiment of the present invention, there is provided a computer readable medium containing a data structure for storing channel information on access points in an extended service set, the channel information provided to a mobile station to select a new access point during a handoff in a wireless local area network, the data structure comprising address information of each of the on respective access points in the extended service set, information on a channels used by each of the respective access points in the extended service set, and information on one or more access points adjacent to each of the respective access points in the extended service set.

Please delete paragraph 61 and replace it with the following new paragraph

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    A mobile station 660 sends a handoff alert message 601 to an AP1 610, which is the present AP. The AP1 610 broadcasts handoff notification messages 602 to an AP2 620, an AP3 630, an AP4 640, and an AP5 650 that are included in an extended service set ESS. AP2 620 through AP5 650 that received the handoff notification messages 602 send handoff response messages, which include channel information for AP2 620 through AP5 650. More specifically, the AP2 620, the AP3 630, the AP4 640, and the AP5 650 send the handoff response messages 603, 604, 605, and 606, respectively, to the AP1 610. The AP1 610 receives the handoff response messages 603 through 606 from AP2 through AP5 650 and generates, for example, a distributed service table (DST) using the received channel information. AP1 610 sends DST information, i.e., channel information 607, to the mobile station 660. Accordingly, the mobile station 660 recognizes the channel information 607 of the adjacent APs 620 through 650.

Please delete paragraph 62 and replace it with the following new paragraph

    The flow of the messages in the process described above is shown in FIG. 7. The present AP sends handoff notification messages 710, requesting channel information, to the adjacent APs. Thereafter, the AP1, the AP2, and the AP3 send handoff response messages 720, 730, and 740, respectively, to the present AP. Accordingly, the present AP obtains information on the adjacent APs. It is understood that according to various aspects of the present invention, an access point may request information on adjacent APs, and configure information on the adjacent APs by extracting necessary information from signals received from the adjacent APs. Furthermore, the access point may update information on the adjacent APs stored in, for example, the above described DST, periodically or non-periodically.

Please delete paragraph 66 and replace it with the following new paragraph

    The DST 830 stores the channel information included in the handoff notification acknowledgement message. The data stored in the DST 830 is exemplified in FIG. 9. According to an embodiment of the present invention, the DST 830 includes basic service set identifications (BSSIDs) representing basic service set (BSS) identifiers, AP addresses, information on channels used by the respective APs, and information on the APs' adjacent APs.